¥ \$

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

ENTERED

BEST AVAILABLE COPY



PCT

RAW SEQUENCE LISTINGPATENT APPLICATION: **US/10/509,773**DATE: 07/07/2005

TIME: 13:28:01

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\07072005\J509773.raw

```
3 <110> APPLICANT: Delaney, Allen
     5 <120> TITLE OF INVENTION: Cancer Associated Protein Phosphatases and their
             uses
     8 <130> FILE REFERENCE: SMAR-044
     10 <140> CURRENT APPLICATION NUMBER: 10/509,773
C--> 11 <141> CURRENT FILING DATE: 2004-09-28
    13 <150> PRIOR APPLICATION NUMBER: CA03/00393
    14 <151> PRIOR FILING DATE: 2003-03-19
    16 <150> PRIOR APPLICATION NUMBER: 60/368,859
    17 <151> PRIOR FILING DATE: 2002-03-28
    19 <160> NUMBER OF SEQ ID NOS: 12
    21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
    23 <210> SEQ ID NO: 1
    24 <211> LENGTH: 1520
    25 <212> TYPE: DNA
    26 <213> ORGANISM: Homo sapiens
    28 <220> FEATURE:
    29 <221> NAME/KEY: misc_feature
    30 <222> LOCATION: (0)...(0)
    31 <223> OTHER INFORMATION: MKPX polynucleotide
    33 <400> SEQUENCE: 1
    34 ggcacgaggc cgagcctagt gcctcccacg cccggcggcc gcgagccggg gtccgcgagg
    35 geggagtggg gegeggeage caggaaceeg actacgaate ceagggtgeg ggegggegga
                                                                              120
     36 gcgaggaggg acgctgggcc tgcccggtgc gcacgggggc ggggaccggc aaggcgggac
                                                                              180
     37 catttecegg cataggetee ggtgeeeetg eeeggeteee geegggaagt tetaggeege
                                                                              240
    38 cgcacagaaa gccctgccct ccacgccggg tctctggagc gccctgggtt gcccggccgg
                                                                              300
     39 tecetgeege tgaettgttg acaetgegag caeteagtee etecegegeg cetecteece
                                                                              360
    40 qcccqcccq ccqctcctcc tccctqtaac atqccataqt qcqcctqcqa ccacacqqcc
                                                                              420
    41 ggggggctag cgttcgcctt cagccaccat ggggaatggg atgaacaaga tcctgcccgg
                                                                              480
    42 cctgtacatc ggcaacttca aagatgccag agacgcggaa caattgagca agaacaaggt
                                                                              540
    43 gacacatatt ctgtctgtcc atgatagtgc caggcctatg ttggagggag ttaaatacct
                                                                              600
    44 gtgcatccca gcagcggatt caccatctca aaacctgaca agacatttca aagaaagtat
                                                                              660
    45 taaattcatt cacgagtgcc ggctccgcgg tgagagctgc cttgtacact gcctggccgg
                                                                              720
                                                                              780
    46 ggtctccagg agcgtgacac tggtgatcgc atacatcatg accgtcactg actttggctg
    47 ggaggatgcc ctgcacaccg tgcgtgctgg gagatcctgt gccaacccca acgtgggctt
                                                                              840
    48 ccagagacag ctccaggagt ttgagaagca tgaggtccat cagtatcggc agtggctgaa
                                                                              900
    49 ggaagaatat ggagagagcc ctttgcagga tgcagaagaa gccaaaaaca ttctggccgc
                                                                              960
    50 tocaggaatt ctgaagttot gggcotttot cagaagactg taatgtacct gaagtttotg
                                                                             1020
    51 aaatattgca aacccacaga gtttaggctg gtgctgccaa aaagaaaagc aacatagagt
                                                                             1080
    52 ttaagtatcc agtagtgatt tgtaaacttg tttttcattt gaagctgaat atatacgtag
                                                                             1140
    53 tcatgtttat gttgagaact aaggatattc tttagcaaga gaaaatattt tccccttatc
                                                                             1200
    54 cccactgctg tggaggtttc tgtacctcgc ttggatgcct gtaaggatcc cgggagcctt
                                                                             1260
    55 gccgcactgc cttgtgggtg gcttggcgct cgtgattgct tcctgtgaac gcctcccaag
                                                                             1320
```

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\07072005\J509773.raw

56 gacgagecea gtgtagttgt gtggegtgaa etetgeeegt gtgtteteaa atteeeeage 1380 57 ttgggaaata gcccttggtg tgggttttat ctctggtttg tgttctccqt ggtggaattg 1440 1500 59 aaaaaaaaaa aaaaaaaaa 1520 62 <210> SEQ ID NO: 2 63 <211> LENGTH: 184 64 <212> TYPE: PRT 65 <213> ORGANISM: Homo sapiens 67 <220> FEATURE: 68 <221> NAME/KEY: UNSURE 69 <222> LOCATION: (0)...(0) 70 <223> OTHER INFORMATION: MKPX polypeptide 72 <400> SEQUENCE: 2 73 Met Gly Asn Gly Met Asn Lys Ile Leu Pro Gly Leu Tyr Ile Gly Asn 10 75 Phe Lys Asp Ala Arg Asp Ala Glu Gln Leu Ser Lys Asn Lys Val Thr 77 His Ile Leu Ser Val His Asp Ser Ala Arg Pro Met Leu Glu Gly Val 78 79 Lys Tyr Leu Cys Ile Pro Ala Ala Asp Ser Pro Ser Gln Asn Leu Thr 81 Arg His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu Arg 70 83 Gly Glu Ser Cys Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val 90 85 Thr Leu Val Ile Ala Tyr Ile Met Thr Val Thr Asp Phe Gly Trp Glu 86 100 105 87 Asp Ala Leu His Thr Val Arg Ala Gly Arg Ser Cys Ala Asn Pro Asn 115 120 89 Val Gly Phe Gln Arg Gln Leu Gln Glu Phe Glu Lys His Glu Val His 135 140 91 Gln Tyr Arg Gln Trp Leu Lys Glu Glu Tyr Gly Glu Ser Pro Leu Gln 150 155 93 Asp Ala Glu Glu Ala Lys Asn Ile Leu Ala Ala Pro Gly Ile Leu Lys 165 170 95 Phe Trp Ala Phe Leu Arg Arg Leu 180 99 <210> SEQ ID NO: 3 100 <211> LENGTH: 2916 101 <212> TYPE: DNA 102 <213> ORGANISM: Homo sapiens 104 <220> FEATURE: 105 <221> NAME/KEY: misc feature 106 <222> LOCATION: (0)...(0) 107 <223> OTHER INFORMATION: PTP4A1 polynucleotide 109 <400> SEQUENCE: 3 110 aagggcgcct cggcgcgtgt attggctcct tcggctgcgg gccggctcgc ctacgcgctc 60 111 tgctccgagc cgctcactgc atggtagagt ctggtgcccc cgccgccgcc tgcatcgccg 120 112 ccaccgccgc tccgccacga ccaccgccgc ctccttgtcc tgcagccacc gccaccgcct 180

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\07072005\J509773.raw

```
113 qtqtcqccqc cqctcqgqac cqcttgtatg attaggccac aatcttcaat gagtaaacat 240
114 attecteaat tetgtggtgt tettggteae acatttatgg agtttetgaa gggeagtgga 300
115 gattactgcc aggcacagca cgacctctat gcagacaagt gaactgtaga aactgattac 360
116 tgctccacca agaagccccc ataagagtgg ttatcctgga cacagaagtg ttgaaatcca 420
117 caqaqcattt tacaaqaqtt ctqacctqqa tqqqqtaaac ctcagtgcac ttctttctg 480
118 ttggcctcag tattactgga ttgaagaatt gctgcttctt gttaggaggt tcatttcact 540
119 tatcattact tacaacttca tactcaaagc actgagaatt tcaagtggag tatattgaag 600
120 tagacttcag tttctttgga tcatttctgt attcaatttt tttaattatt tcataaccct 660
121 attgagtgtt ttttaactaa attaacatgg ctcgaatgaa ccgcccagct cctgtggaag 720
122 tcacatacaa gaacatgaga tttcttatta cacacaatcc aaccaatgcg accttaaaca 780
123 aatttataga ggaacttaag aagtatggag ttaccacaat agtaagagta tgtgaagcaa 840
124 cttatqacac tactcttqtq qaqaaagaag gtatccatgt tcttgattgg ccttttgatg 900
125 atggtgcacc accatccaac cagattgttg atgactggtt aagtcttgtg aaaattaagt 960
126 ttcgtgaaga acctggttgt tgtattgctg ttcattgcgt tgcaggcctt gggagagctc 1020
127 cagtacttgt tgccctagca ttaattgaag gtggaatgaa atacgaagat gcagtacaat 1080
128 tcataagaca aaagcggcgt ggagctttta acagcaagca acttctgtat ttggagaagt 1140
129 atcgtcctaa aatgcggctg cgtttcaaag attccaacgg tcatagaaac aactgttgca 1200
130 ttcaataaaa ttqqqqtqcc taatqctact qqaaqtqgaa cttgagatag ggcctaattt 1260
131 qttatacata ttaqccaaca tqttqqctta qtaaqtctaa tgaaqcttcc ataggagtat 1320
132 tgaaaggcag ttttaccagg cctcaagcta gacagatttg gcaacctctg tatttgggtt 1380
133 acagtcaacc tatttggata cttggcaaaa gattcttgct gtcagcatat aaaatgtgct 1440
134 tqtcatttqt atcaattqac ctttccccaa atcatgcagt attgagttat gacttgttaa 1500
135 atctattccc atgccagaat cttatcaata cataagaaat ttaggaagat taggtgccaa 1560
136 aatacccagc acaatacttg tatattttta gtaccataca gaagtaaaat cccaggaact 1620
137 atgaacacta gaccttatgt ggtttattcc ttcagtcatt tcaaacattg aaagtagggc 1680
138 ctacatgqtt atttqqctqc tcactttatg tttacatctc ccacattcat accaatatac 1740
139 gtcaggtttg gttaaccatt gattttttt tttttttacc aagtcttaca gtgattattt 1800
140 tacgtgtttc catgtatctc actttgtgct gtattaaaaa aacctccatt ttgaaaatct 1860
141 acgttgtaca gaagcacatg tctttaatgt cttcagacaa aaaagcctta cattaattta 1920
142 atgtttgcac tctgaggtgc aacttaacag ggagggcctg agaaaagaat gggaggggc 1980
143 tattaattat ttttaqcaaa atqttgcctt tgtcttgtgc aaacatgtag aatatgctct 2040
144 ttaatttagt aaaatatttt tttaaaaggt agagatgctt tgttattgta atcataaact 2100
145 tcctgaaatt cttgtaattt ttttcccata cttatcagaa gtgtgtttac caacttattc 2160
146 ttgtttgaaa gtgtgatttt ttttttcctt cccaacctct cttgcaaaaa aagaaatggg 2220
147 tttctgctaa tgaattgagc agacatctaa tattttatat gccttttgga gctgggtaac 2280
148 ttaatatttg gatacttgac aatttgtttt attatgtaat tgataaaatg gtgatgtgta 2340
149 ttaatgttag ttcaaccata tatttatact gtctggggat gtgtggttat agttctgtgg 2400
150 gagaaataat tttgtcagtg ttcaccagct tgtaaaaaact tagtgcgaga gctgaaacat 2460
151 ctaaataaat aatgacatgc atttatcatc attgagattg gtttgcttaa aattaactta 2520
152 ttttgtagaa gacaaaatga attgcacttc acttaatgtg tgtcctcatc tttttacaaa 2580
153 taaatqaaqq attataaatq atqtcaqcat tttagtaaac ttatagacaa aatttgttag 2640
154 ggtcattcat gaaaacttta atactaaaag cactttccat tatatacttt ttaaaggtct 2700
155 agataatttt gaaccaattt attattgtgt actgaggaga aataatgtat agtagaggac 2760
156 agccttggtt tgtaaagctc agctccacta gttcatggtt tggtgcaact tctgagcctc 2820
157 agttctctcc tttgcaaatt aataattaca tacctgccta gatttcggaa attaatctaa 2880
158 atattagtat ctggctacat gatggccatg tcaagt
161 <210> SEQ ID NO: 4
162 <211> LENGTH: 173
```

163 <212> TYPE: PRT

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\07072005\J509773.raw

```
164 <213 > ORGANISM: Homo sapiens
166 <220> FEATURE:
167 <221> NAME/KEY: UNSURE
168 <222> LOCATION: (0) ...(0)
169 <223> OTHER INFORMATION: PTP4A1 polypeptide sequence
171 <400> SEQUENCE: 4
172 Met ala Arg Met Asn Arg Pro Ala Pro Val Glu Val Thr Tyr Lys Asn
173 1
                    5
174 Met Arg Phe Leu Ile Thr His Asn Pro Thr Asn Ala Thr Leu Asn Lys
                                    25
176 Phe Ile Glu Glu Leu Lys Lys Tyr Gly Val Thr Thr Ile Val Arg Val
178 Cys Glu Ala Thr Tyr Asp Thr Thr Leu Val Glu Lys Glu Gly Ile His
        50
                            55
180 Val Leu Asp Trp Pro Phe Asp Asp Gly Ala Pro Pro Ser Asn Gln Ile
                        70
                                            75
182 Val Asp Asp Trp Leu Ser Leu Val Lys Ile Lys Phe Arg Glu Glu Pro
184 Gly Cys Cys Ile Ala Val His Cys Val Ala Gly Leu Gly Arg Ala Pro
                                    105
186 Val Leu Val Ala Leu Ala Leu Ile Glu Gly Met Lys Tyr Glu Asp
                                120
                                                    125
187
            115
188 Ala Val Gln Phe Ile Arg Gln Lys Arg Arg Gly Ala Phe Asn Ser Lys
                            135
190 Gln Leu Leu Tyr Leu Glu Lys Tyr Arg Pro Lys Met Arg Leu Arg Phe
                                                                 160
                        150
192 Lys Asp Ser Asn Gly His Arg Asn Asn Cys Cys Ile Gln
193
                                        170
196 <210> SEQ ID NO: 5
197 <211> LENGTH: 2759
198 <212> TYPE: DNA
199 <213 > ORGANISM: Homo sapiens
201 <220> FEATURE:
202 <221> NAME/KEY: misc_feature
203 <222> LOCATION: (0)...(0)
204 <223> OTHER INFORMATION: PTPN7 polynucleotide sequence
206 <400> SEQUENCE: 5
207 ggcacgaggc aagaggcagc ctgggggcca cagctgcttc agcagacctc atggctgagt 60
208 gagecteece tgggeecage accecacete ageatggtee aagecatggg gggegeteea 120
209 gagcacagee gttgacettg tetttggggg cagecatgae ecageeteeg cetgaaaaaa 180
210 cgccagccaa gaagcatgtg cgactgcagg agaggcgggg ctccaatgtg gctctgatgc 240
211 tggacgttcg gtccctgggg gccgtagaac ccatctgctc tgtgaacaca ccccgggagg 300
212 tcaccctaca ctttctgcgc actgctggac acccccttac ccgctgggcc cttcagcgcc 360
213 agccacccag ccccaagcaa ctggaagaag aattcttgaa gatcccttca aactttgtca 420
214 geceegaaga cetggacate cetggecaeg cetecaagga cegatacaag accatettge 480
215 caaatcccca gagccgtgtc tgtctaggcc gggcacagag ccaggaggac ggagattaca 540
216 tcaatgccaa ctacatccga ggctatgacg ggaaggagaa ggtctacatt gccacccagg 600
217 gccccatgcc caacactgtg tcggacttct gggagatggt gtggcaagag gaagtgtccc 660
218 tcattgtcat gctcactcag ctccgagagg gcaaggagaa atgtgtccac tactggccca 720
```

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\07072005\J509773.raw

```
219 cagaagagga aacctatgga cccttccaga tccgcatcca ggacatgaaa gagtgcccag 780
220 aatacactgt geggeaegte accatecagt accaggaaga gegeeggtea gtaaageaca 840
221 tectetttte ggeetggeea gaccateaga caccagaate agetgggeec etgetgegee 900
222 tagtggcaga ggtggaggag agcccggaga cagccgccca ccccgggcct atcgtagtcc 960
223 actgcagtgc agggattggc cggacgggct gcttcatcgc cacgcgaatt ggctgtcaac 1020
224 agetgaaage cegaggagaa gtggacatte tgggtattgt gtgecaaetg eggetagaea 1080
225 gaggggggat gatccagacg gcagagcagt accagtteet gcaccacact ttggecetgt 1140
226 atgcaggcca gctgcctgag gaacccagcc cctgacccct gccaccctcc ggtggcccag 1200
227 gtgcctacct ccctcaagcc tgggaagqtg gqtctgggga aagtgggccg agtgatctgg 1260
228 gggtaccctt gggttggtgt ggggaaggag tgcctcctta gtggtgcttg acagtcacag 1320
229 gaagcagcag cagtaaggac aaggggccgg attcaggtct tcaaccactg gccactcctc 1380
230 ttgccttcct ctgttggccc cagatggaca gtaaggggaa cctccaatgt ctctctgaac 1440
231 ttaaagacag gagctggcat ttatgacaga caaagaaaga agcccaggtg tcctggtgtt 1500
232 ctctgagaca ctctttgtga tcttcagttt cctgttctat aacatgaaca taagtgctta 1560
233 gctgccatga gggaaaagta atgagagaag ttctagaagc cactccagcc actccttcct 1620
234 ggggctgaca aaagggtgat tccaagatca tccttcaccc gaggtcctgc ccaagcacag 1680
235 gccagatgca agaatgggga aaagtctggt cctgatctcc aagtctcaac atcctatcag 1740
236 tgactctgcc tccctgacca cacatcggaa gggcctggat gacccaatca aaagaaagaa 1800
237 caaggactct ggttaccctt gcctccaccc atgtgtcata agagtaggct acagaggtga 1860
238 ccaggcctgg cagttgaaat ctctggaaga gggaacatgt ggggactact cagaggcaaa 1920
239 gaggagetge teetgeetee atggttgetg geeacteeca ceaactacte ttagggagge 1980
240 taagcagtet etgttttgae ettecatgge teaataatae etggatgeag gaccaetata 2040
241 ccttgcattt gctgagtaca cctagagagc ttggctgttt ccaaaaacaa tcagggtcat 2100
242 aaccatccat qcaqacatqq aqqctcqqct qaaccaqqac tcctcactqt ctacctqaqa 2160
243 gaatgagcac ccctcatcca tctcagcatc aacacaattt ccaggggacc tcaggtctac 2220
244 ctcaggactg aaccgccaca cctcaggatt cctcctcctt gaatctgaga ctggctgccc 2280
245 attctgagat ggggatgaag gtaagatgcc gcatcaccag cacgccgccc ctgacagctg 2340
246 ccttgatacc agctctctgt ggaaaccccc gaggagttgg atctggagaa cagctgggcc 2400
247 tecteactea ggaettetet cetgaagaac aegeagtget aaaactgagg atgattteec 2460
248 taatgettet gettggagte tettatggag gagetgetee tteettacag ettggggatg 2520
249 gactteecac acctecacet eccetgagee etgageeetg tgagaggaeg actgtetatg 2580
250 caatgaggct cggtgggggg ctctcaagtg cctgatcctg cctggctcag aggcagccag 2640
251 agggaagcaa ctgacagccc cacaggccct ccctggcact gtccccatct cagagctcag 2700
252 gagggtacaa gctccagaac agtaaccaag tgggaaaata aagacttctt ggatgactg 2759
255 <210> SEQ ID NO: 6
256 <211> LENGTH: 339
257 <212> TYPE: PRT
258 <213> ORGANISM: Homo sapiens
260 <220> FEATURE:
261 <221> NAME/KEY: UNSURE
262 <222> LOCATION: (0)...(0)
263 <223> OTHER INFORMATION: PTPN7 polypeptide sequence
265 <400> SEQUENCE: 6
266 Met Thr Gln Pro Pro Pro Glu Lys Thr Pro Ala Lys Lys His Val Arg
267
268 Leu Gln Glu Arg Arg Gly Ser Asn Val Ala Leu Met Leu Asp Val Arg
                                    25
270 Ser Leu Gly Ala Val Glu Pro Ile Cys Ser Val Asn Thr Pro Arg Glu
271
            35
```

VERIFICATION SUMMARYDATE: 07/07/2005PATENT APPLICATION: US/10/509,773TIME: 13:28:02

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\07072005\J509773.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date